

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT****Complete if Known**

Sheet

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of

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Application No.

10/633,268

Filing Date

July 31, 2003

First Named Inventor

Edwin R. Leonard

Art Unit

2643

Examiner Name

Not Yet Known

Attorney Docket Number

23564-07867

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document No. Number - Kind Code <sup>2</sup> (if known)	Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document
NRL	A1	US2002/0063780A1	05-30-2002	Harman et al.
	A2	US2003/0112325A1	06-19-2003	Boyden et al.
	A3	US2003/0058363A1	03-27-2003	Boyden et al.
	A4	US2003/0058334A1	03-27-2003	Boyden et al.
	A5	US 5,612,733	03-18-1997	Flohr
	A6	US 5,400,069	03-21-1995	Braun et al.
	A7	US 5,335,022	08-02-1994	Braun et al.
	A8	US 5,187,571	02-16-1993	Braun et al.
	A9	US 5,117,285	05-26-1992	Nelson et al.
	A10	US 5,038,224	08-06-1991	Martulli et al.
	A11	US 4,928,301	05-22-1990	Smoot
	A12	US 4,890,314	12-26-1989	Judd et al.
	A13	US 5,572,248	11-05-1996	Allen et al.

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document Country Code <sup>3</sup> - Number <sup>4</sup> Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	T <sup>6</sup>

**OTHER REFERENCES - NON-PATENT LITERATURE DOCUMENTS**

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NRL	C1	BARAKONYI, István et al., <i>Augmented Reality Videoconferencing for Collaborative Work</i> , Proc. of the 2nd Hungarian Conference on Computer Graphics and Geometry, Budapest, Hungary, May 2003, 8 pages.	
	C2	BISHOP, Gary et al., <i>Working in the Office of "Real Soon Now,"</i> IEEE	

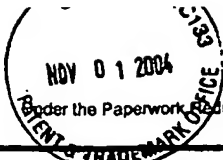
Examiner Signature	Melvin Ramakrishna	Date Considered	2/21/05
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

### Complete if Known

Application No.	10/633,266
Filing Date	July 31, 2003
First Named Inventor	Edwin R. Leonard
Art Unit	2643
Examiner Name	Not Yet Known
Attorney Docket Number	23564-07867

Sheet 2 of 5

### OTHER REFERENCES – NON-PATENT LITERATURE DOCUMENTS

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		Computer Graphics and Applications, July/August 2000, pp. 76-78	
MRIC	C3	CHEN, Milton, <i>Design of a Virtual Auditorium</i> , Proceedings of ACM Multimedia, Minneapolis, 2001, pp. 19-28.	
	C4	CHEN, Milton, <i>Leveraging the Asymmetric Sensitivity of Eye Contact for Videoconference</i> , Proceedings of CHI, Vol. No. 4, Issue No. 1, April 20-25, 2002, pp. 49-56	
	C5	HEATH, Christian et al., <i>Disembodied Conduct: Interactional Asymmetries in Video-Mediated Communication</i> , Published in: Technology in Working Order: Studies of Work, Interaction, and Technology, Graham Button, editor, London 1993, pp. 35-54.	
	C6	HEIM, Jan et al., <i>Videotelephony Fitness-for-Purpose Requirements</i> , ACTS Project AC314 Vis-à-vis: Fitness-for-Purpose of Videotelephony in Face-to-Face Situations, CEC Deliverable A314/UoN/SoP/DS/R/001/b1, May 1998, pp. 1-48.	
	C7	KELSHIKAR, Nikhil, <i>Real-Time Terascale Implementation of Tele-immersion</i> , International Conference on Computational Science (ICCS), June, 2003, 10 pages.	
	C8	KUZUOKA, Hideaki et al., <i>Agora: A Remote Collaboration System that Enables Mutual Monitoring</i> , in CHI'99 Extended Abstracts, 1999, 2 pages.	
	C9	LOW, Kok-Lim, <i>Life-Sized Projector-Based Dioramas</i> , Proceedings of ACM Symposium on Virtual Reality Software and Technology 2001 (VRST 2001), November 2001, 9 pages.	
	C10	MAJUMDER, Aditi et al., <i>Immersive Teleconferencing: A New Algorithm to Generate Seamless Panoramic Video Imagery</i> , Proc ACM Multimedia'99, 1999, 8 pages.	
	C11	MAOJUN, Zhang et al., <i>VCS: A Virtual Environment Support for Awareness and Collaboration</i> , ACM Multimedia, October 1999, pp. 163-165.	
✓	C12	MARK, Gloria et al., <i>An Experiment Using Life-size HDTV</i> , WACE 2001 Proceedings, pp. 1-6.	

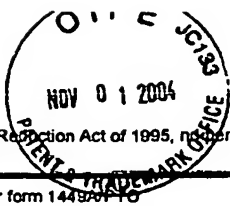
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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application No.	10/633,266
Filing Date	July 31, 2003
First Named Inventor	Edwin R. Leonard
Art Unit	2643
Examiner Name	Not Yet Known
Attorney Docket Number	23564-07867

Sheet 3 of 5

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NRK	C13	MARK, Gloria, <i>Extreme Collaboration</i> , Communications of the ACM, December 2001, pp. 1-8.	
	C14	MARK, Gloria et al., <i>Group-to-Group Distance Collaboration: Examining the "Space Between,"</i> Proceedings of the 8 <sup>th</sup> European Conference of Computer-supported Cooperative Work, September 14-18, 2003, Finland, pp. 1-20.	
	C15	MORIKAWA, Osamu et al., <i>HyperMirror: Toward Pleasant-to-use Video Mediated Communication System</i> , Proceedings of the 1998 ACM conference on Computer supported cooperative work, 1998, pp. 149-158.	
	C16	NIELSEN, Jakob, <i>CHI92 Trip Report</i> , Monterey, CS, May 3-7, 1992, [Retrieved on November 12, 2003]. Retrieved from the Internet: URL< <a href="http://www.useit.com/papers/tripreports/chi92.html">http://www.useit.com/papers/tripreports/chi92.html</a> > pp. 1-5.	
	C17	OKADA, Ken-ichi et al., <i>Multiparty Videoconferencing at Virtual Social Distance: MAJIC Design</i> , Proceedings of CSCW 1994, ACM, Chapel Hill, NC, pp. 385-393.	
	C18	RASKAR, Ramesh, <i>Immersive Planar Display Using Roughly Aligned Projectors</i> , IEEE VR, March 2000, 7 pages.	
	C19	RASKAR, Ramesh et al., <i>Multi-Projector Displays Using Camera-Based Registration</i> , IEEE Visualization, San Francisco, October 1999, 8 pages.	
	C20	SADAGIC, Amela et al., <i>Tele-immersion Portal: Towards an Ultimate Synthesis of Computer Graphics and Computer Vision</i> , The 4th Annual International Workshop on Presence, May 21-23, 2001, 8 pages.	
	C21	TOWLES, Herman, <i>Transport and Rendering Challenges of Multi-Stream, 3D Tele-Immersion Data</i> , NSF Lake Tahoe Workshop on Collaborative Virtual Reality and Visualization (CVRV 2003), Tahoe City (October 26-28, 2003), pp. 1-6.	
	C22	TOWLES, Herman et al., <i>3D Tele-Collaboration Over Internet2</i> , In Proceedings of the International Workshop on Immersive Telepresence (ITP 2002), Juan-les-Pins, France, Dec. 2002, 4 pages.	

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**INFORMATION DISCLOSURE  
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First Named Inventor	Edwin R. Leonard
Art Unit	2643
Examiner Name	Not Yet Known
Attorney Docket Number	23564-07867

Sheet 4 of 5

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NRK	C23	VERTEGAAL, Roel et al., <i>Effects of Gaze on Multiparty Mediated Communication</i> , Proceedings of Graphics Interface, Montreal, Canada, 2000, 8 pages.	
	C24	VERTEGAAL, Roel, <i>The GAZE Groupware System: Mediating Joint Attention in Multiparty Communication and Collaboration</i> , Proceedings of ACM CHI'99 Conference on Human Factors in Computing Systems, Pittsburgh, PA, ACM, 1999, 8 pages	
	C25	WELCH, Greg et al., <i>Projected Imagery in Your "Office of the Future,"</i> IEEE Computer Graphics and Applications, July/August 2000, pp. 62-67.	
	C26	WELLNER, Pierre D., <i>Adaptive Thresholding for the DigitalDesk</i> , Technical Report EPC-1993-110, © Rank Xerox Ltd, Cambridge, 1993,	
	C27	WELLNER, Pierre, <i>Interacting With Paper on the DigitalDesk</i> , Communications of the ACM, July 1993, pp. 1-17.	
	C28	WELLNER, Pierre et al., <i>The Double Digital Desk: Shared Editing of Paper Documents</i> , Technical Report EPC-93-108, ©Xerox Research Centre, Cambridge, 1993, 6 pages.	
	C29	YANG, Ruigang et al., <i>Creating Adaptive Views for Group Video Teleconferencing – An Image-Based Approach</i> , International Workshop on Immersive Telepresence (ITP2002), France, December 2002, 4 pages	
	C30	Polycom Video Communications, Collaboration Solutions, <i>Video Streaming With Polycom iPower™ Video Collaboration Solutions</i> , ©2002, pp. 1-5.	
	C31	Polycom Video Communications, Collaboration Solutions, <i>Visual Collaboration Using Polycom iPower Video Conferencing Systems</i> , ©2002, 6 pages.	
	C32	Teliris Ltd, <i>Facing Realty, GlobalTable™ Replaces In-Person Meetings</i> , ©2001, pp. 1-9.	
	C33	Teliris, <i>Preserving the Geometry of Sound</i> , [Retrieved on November 11, 2003]. Retrieved from the Internet: URL:	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Application No.	10/633,266		
		Filing Date	July 31, 2003		
		First Named Inventor	Edwin R. Leonard		
		Art Unit	2643		
		Examiner Name	Not Yet Known		
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		<a href="http://www.teliris.com/technology_audio_presentation.html">http://www.teliris.com/technology_audio_presentation.html</a> , pp. 1-2.	
ARN	C34	Teliris, <i>Creating a Constructive Space</i> , [Retrieved on November 11, 2003]. Retrieved from the Internet: URL: <a href="http://www.teliris.com/technology_environment_design.html">http://www.teliris.com/technology_environment_design.html</a> , pp. 1-2.	
✓	C35	Teliris, <i>Creating a Uniform Virtual Geometry</i> , [Retrieved on November 11, 2003]. Retrieved from the Internet: URL: <a href="http://www.teliris.com/technology_virtual_vectoring.html">http://www.teliris.com/technology_virtual_vectoring.html</a> , pp. 1 of 2.	

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